

The City Watershed Project: Protecting Water Resources

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The **Bay Area City Watershed** project will create an online system which community, city, federal, and university partners can use to monitor and analyze environmental factors influencing water quality. The project will address a number of problems occurring at the nexus of cities and watersheds: water pollution and the loss of natural habitat; health problems resulting from environmental degradation; and the risk of fire as cities expand into wilderness areas. The City Watershed project will demonstrate how information technology can enhance three types of watershed monitoring: visual observations of habitat, land uses, and the impacts of storms; measurement of the physical and chemical characteristics of waters; and, assessing the abundance and diversity of living creatures such as aquatic insects, plants, fish, birds, and other wildlife.



Project participants will use personal digital assistants with global positioning systems, digital cameras, and web content authoring tools to create meaningful watershed research, restoration, and



interpretation activities. The University of California at Berkeley will develop an XML-based web content-sharing environment with a Geographical Information System interface, through which users will access information such as maps, insect identification slides, and water quality data. In addition, users can contribute watershed data, photographs documenting water restoration, or policy recommendations.

The project includes the Richmond, Berkeley, Oakland, and San Francisco area watershed, where the university will establish five watershed learning laboratories to collect and analyze watershed data. The City Watershed project will achieve four outcomes: increase citizen understanding of the urban watershed; enable community members to

participate in improving the natural, social and economic environment; build a sustainable regional partnership of city water partners; and integrate the online system into the ongoing work of the project partners.